FIG. 1

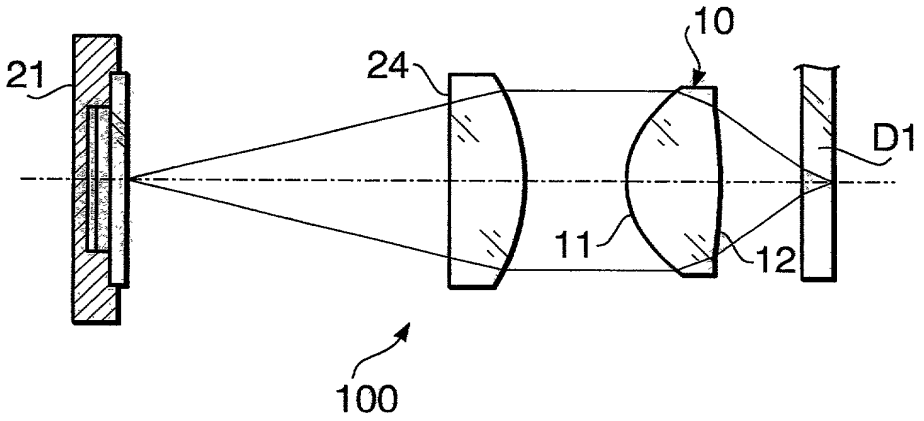


FIG.2A FIG.2B FIG.2C

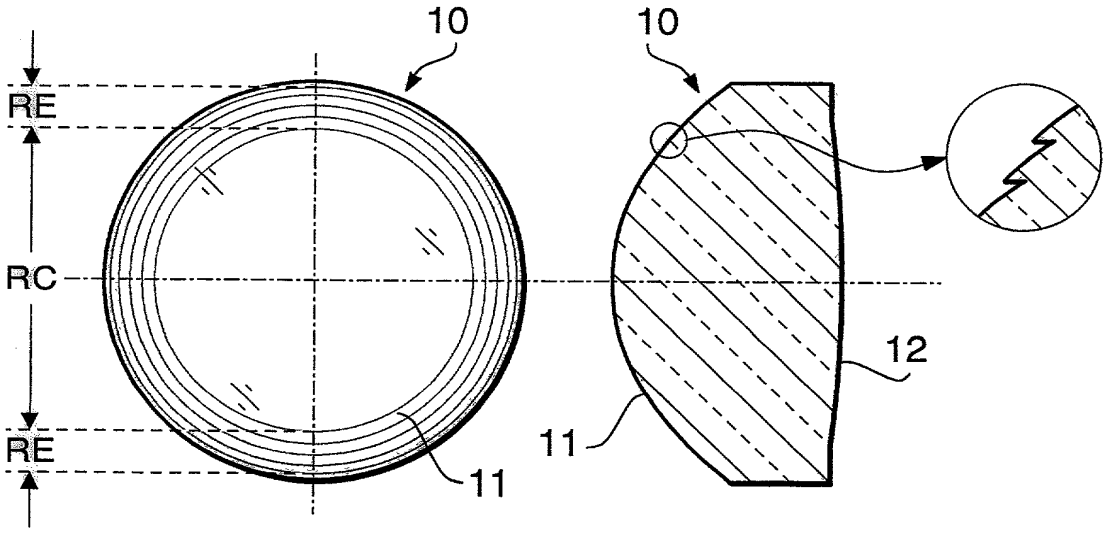


FIG. 3

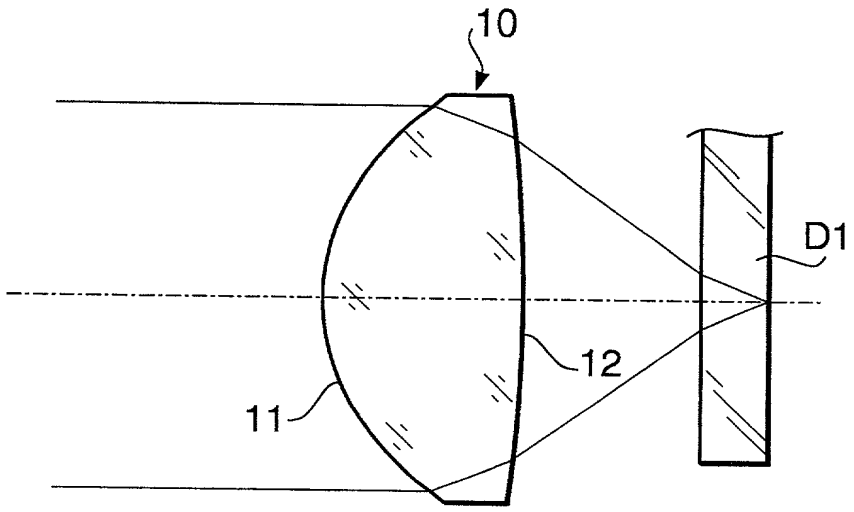
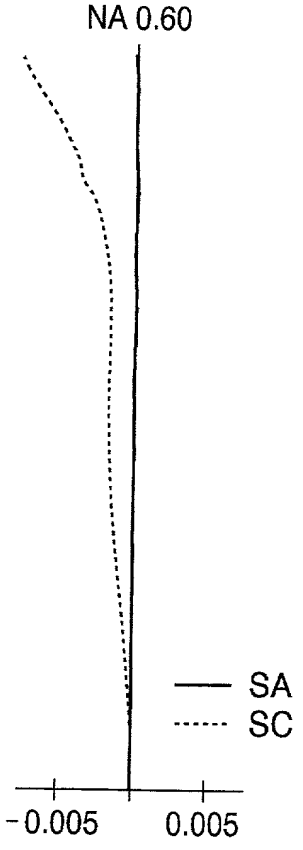
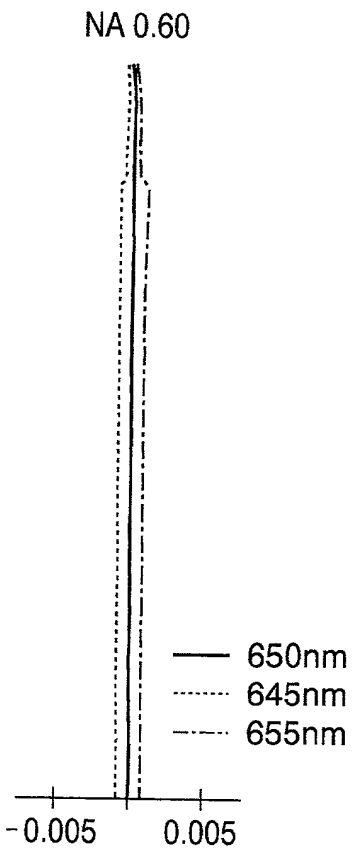


FIG.4A



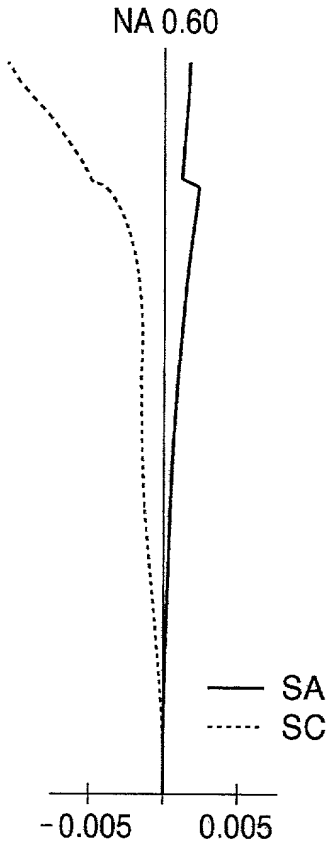
SPHERICAL ABERRATION SA
SINE CONDITION SC

FIG.4B



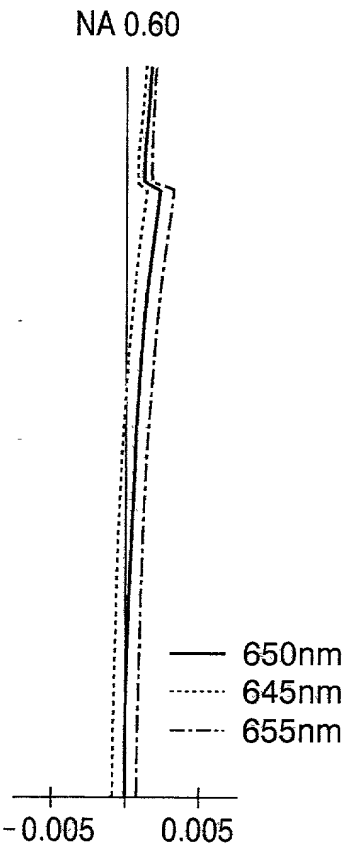
SPHERICAL ABERRATION
CHROMATIC ABERRATION

FIG.5A



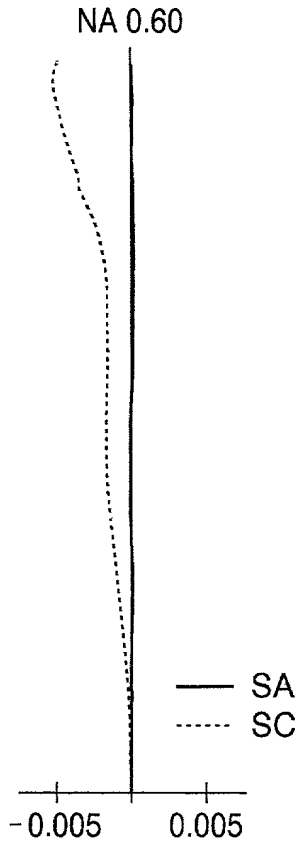
SPHERICAL ABERRATION SA
SINE CONDITION SC

FIG.5B



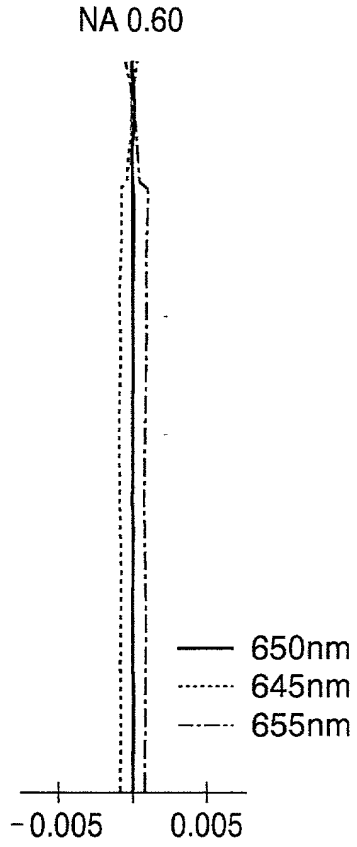
SPHERICAL ABERRATION
CHROMATIC ABERRATION

FIG.6A



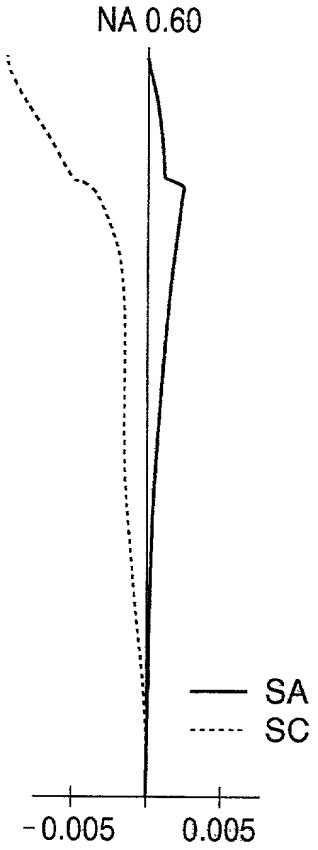
SPHERICAL ABERRATION SA
SINE CONDITION SC

FIG.6B



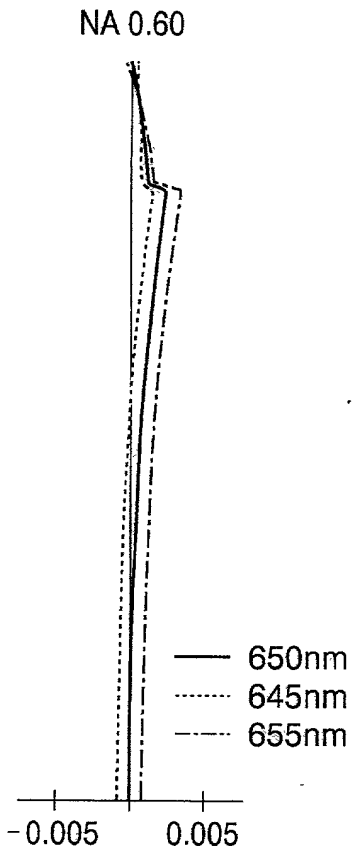
SPHERICAL ABERRATION
CHROMATIC ABERRATION

FIG.7A



SPHERICAL ABERRATION SA
SINE CONDITION SC

FIG.7B



SPHERICAL ABERRATION
CHROMATIC ABERRATION

FIG. 8

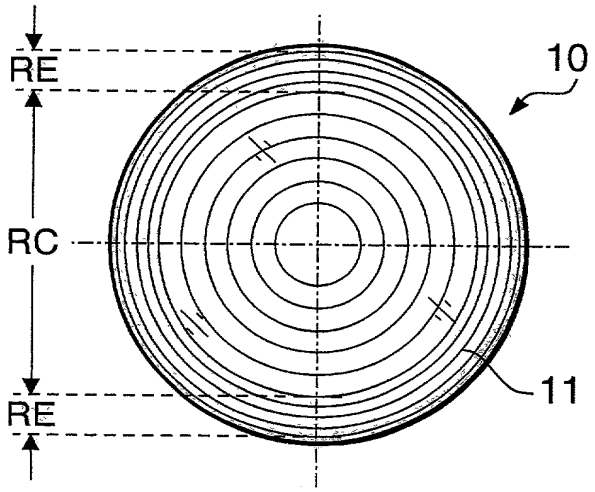
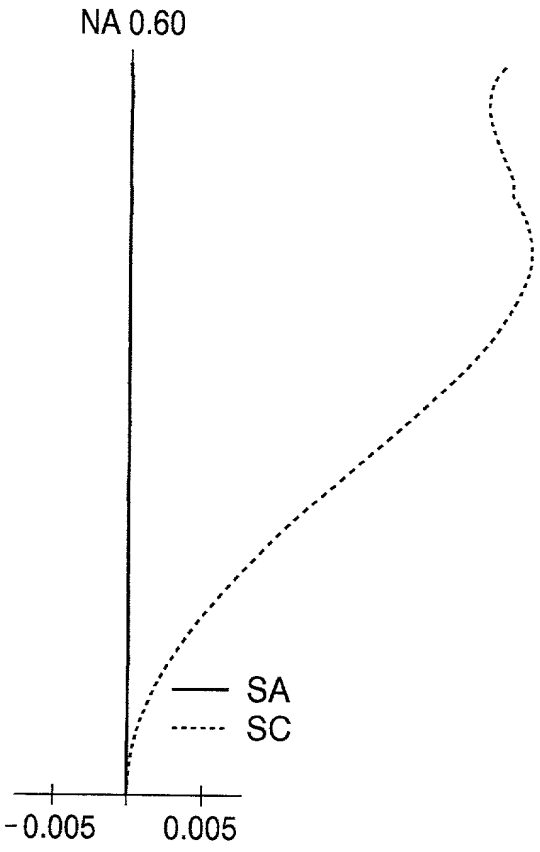
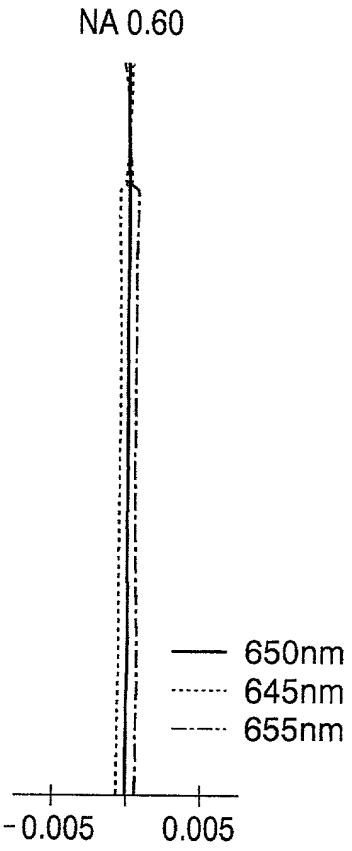


FIG.9A



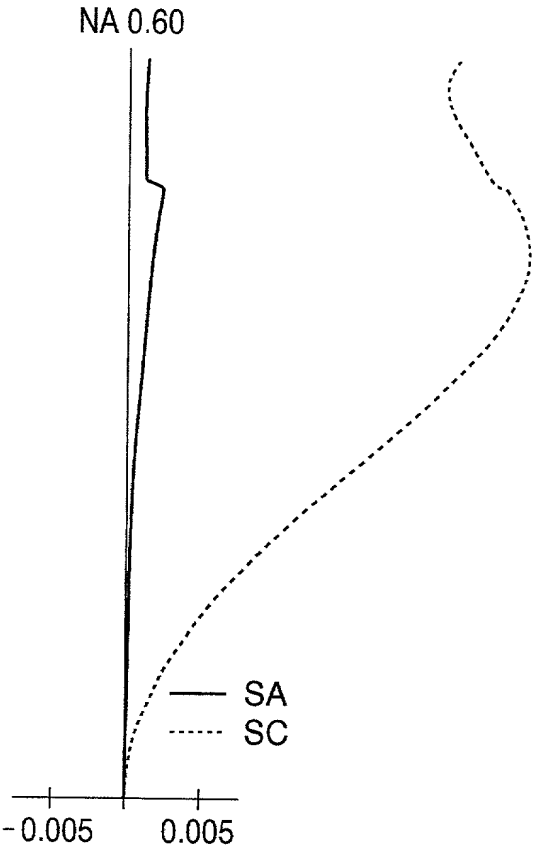
SPHERICAL ABERRATION SA
SINE CONDITION SC

FIG.9B



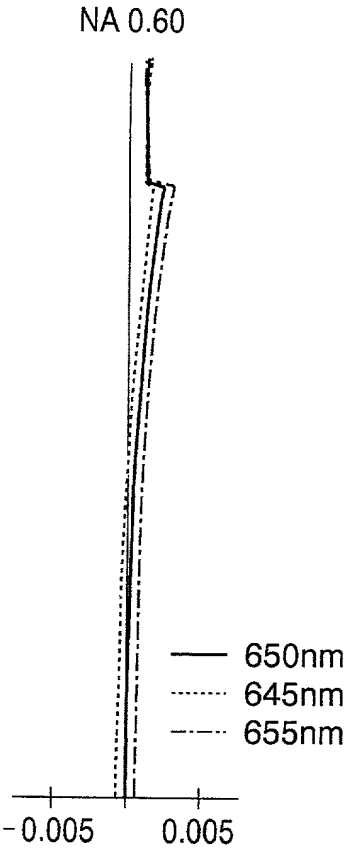
SPHERICAL ABERRATION
CHROMATIC ABERRATION

FIG.10A



SPHERICAL ABERRATION SA
SINE CONDITION SC

FIG.10B



SPHERICAL ABERRATION
CHROMATIC ABERRATION

FIG.11

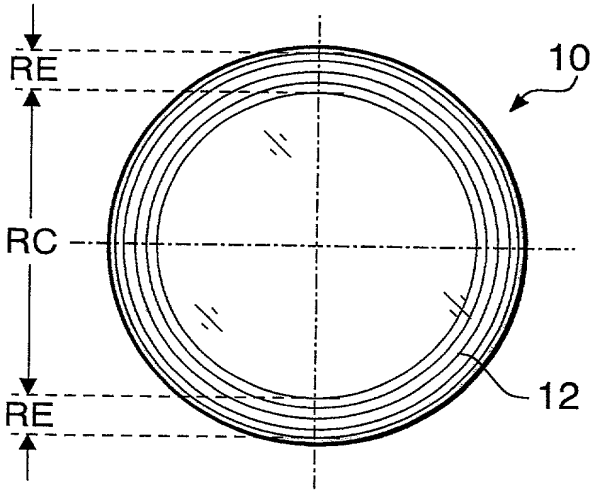
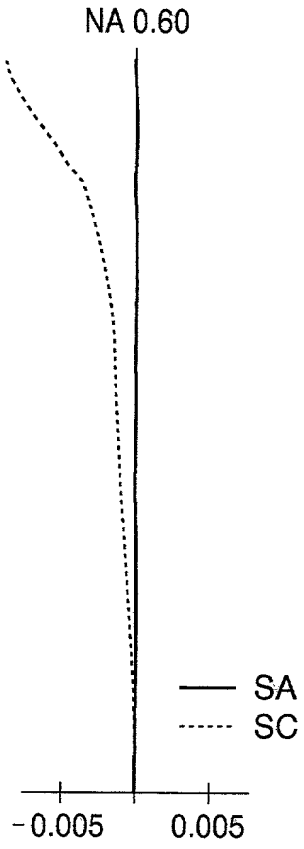
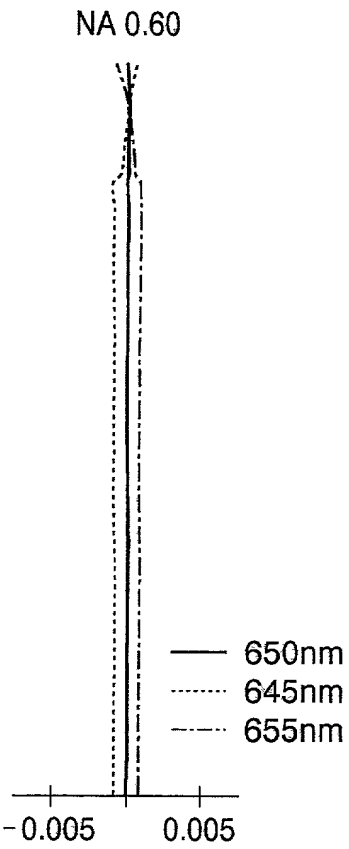


FIG.12A



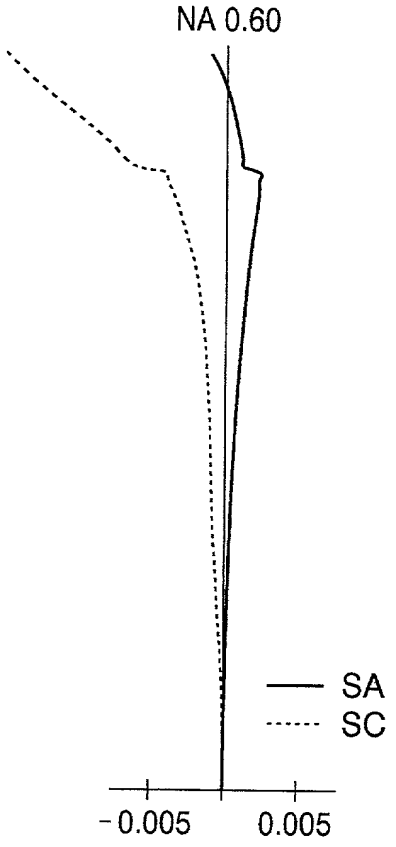
SPHERICAL ABERRATION SA
SINE CONDITION SC

FIG.12B



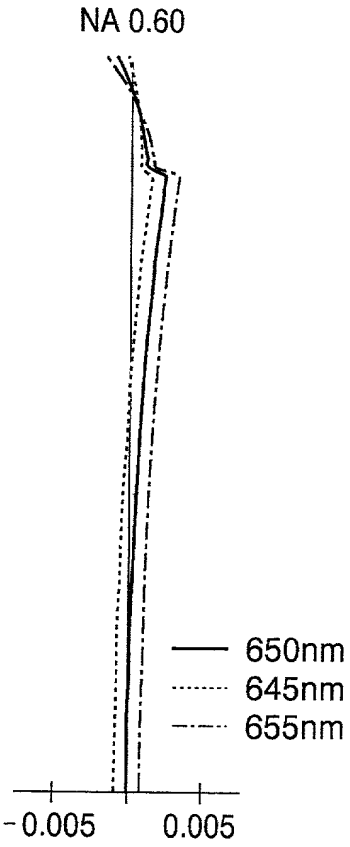
SPHERICAL ABERRATION
CHROMATIC ABERRATION

FIG.13A



SPHERICAL ABERRATION SA
SINE CONDITION SC

FIG.13B



SPHERICAL ABERRATION
CHROMATIC ABERRATION

FIG.14

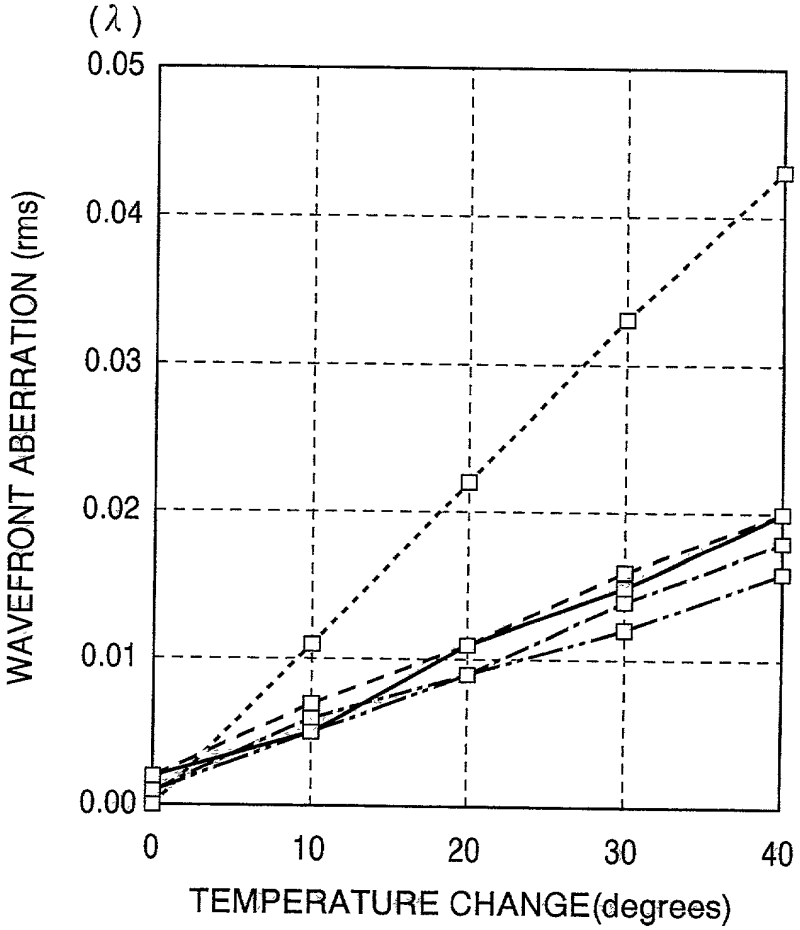

(λ)
0.05
0.04
0.03
0.02
0.01
0.00
WAVEFRONT ABERRATION (rms)
0
10
20
30
40
TEMPERATURE CHANGE(degrees)
1ST EMBODIMENT
2ND EMBODIMENT
3RD EMBODIMENT
4TH EMBODIMENT
COMPARATIVE EXAMPLE

FIG.15

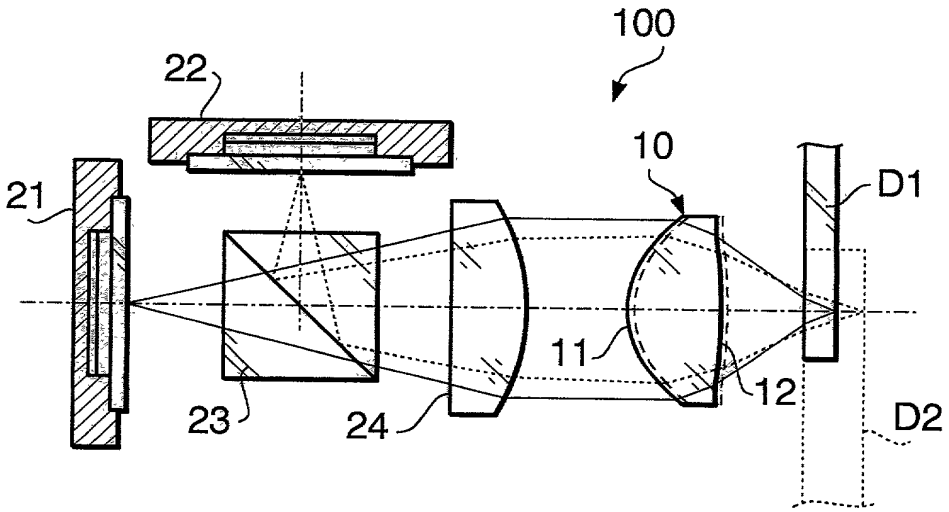
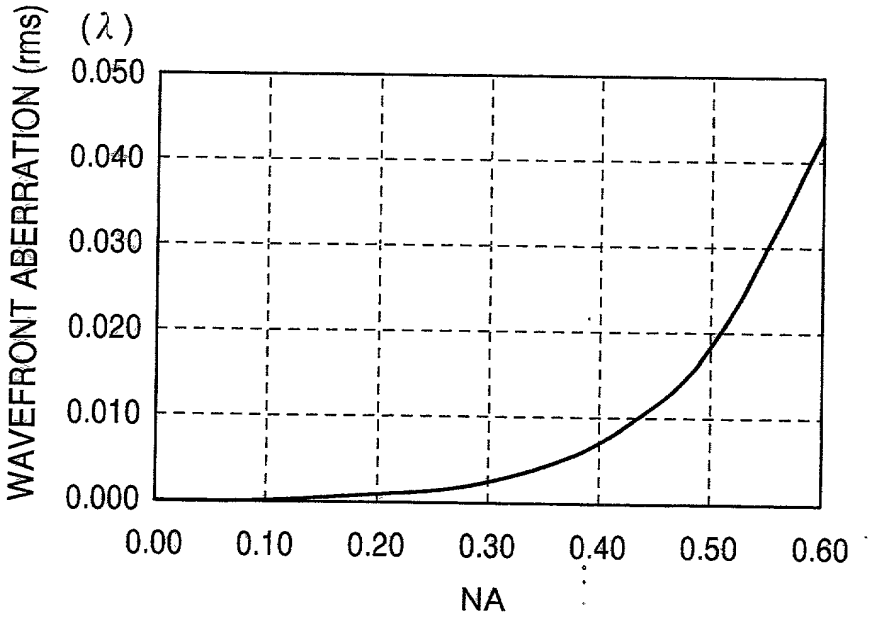

100
22
10
21
D1
11
12
23
24
D2

FIG.16


WAVEFRONT ABERRATION (rms)
(λ)
0.050
0.040
0.030
0.020
0.010
0.000
0.00
0.10
0.20
0.30
0.40
0.50
0.60
NA